



Data Taking Status

2003 February 21-27

News from the Tevatron

- Last store 2271 terminated 05:30 Tue Feb 25
 - CDF requested 2-4 shifts to repair COT
 - They finished ~ midnight Tuesday
 - Five shifts of beam studies
 - But TeV had trouble getting beam circulating until the Wed day shift - so studies were delayed by a shift
 - Repair of Pbar ARF1, followed by problems with A:QDF delayed stacking until mid-day shift Thursday
 - They lost 34 mA of pbar stack attempting first shot setup at noon today - pbar core blowup
 - Recooling core, but lost >40% of the stack
- Stack 'N Store through Tuesday Owl Mar 4
 - Likely to have beam studies next week but at reduced level ~3 shifts



Accelerator Performance

Store	Initial Lumi	Deliv'd Lumi	Termination	Comments
2236	19.2	≈370	Abort	Com Ed glitch tripped Tev RF
2256	30.1	148	Quench	D0 low beta quad trim regulator failure
2260	24.2	863	Intentional	Shot from 100 mA; proton length blow-up TeV transverse dampers on @ 150 GeV
2262	28.4	1145	Intentional	ARF4 caused wide disparity in pbar intensities
2264	30.8	582	Quench	F3 CC tripped off (again, as in store 2221)
2270	20.0	785	Quench	Shot from 100 mA; ARF4 woes continue E1 CC tripped off (as in 2264)
2271	23.2		ongoing	Shot from 143 mA; ARF4 really misbehaved



Other News

- CDF Luminosity measurement is very unstable
 - They replaced their PMTs for the Cerenkov Luminosity Counters during the shutdown
- Supervised Access: 07:00-22:30 Tue Feb 25th
 - Hope to see work/progress summaries today...
- New Trigger List 10.30 ready to go for next store
- Two Shifter Tutorials next week:
 - Mon Mar 3rd in Far Side 13:00
 - Muon System - Markus Wobisch
 - Tue Mar 4th in Far Side 09:00
 - L2 System - Reinhard Schwienhorst
- Major computing system downtime next week
 - DØmino will be down for at least 8 hours
 - ADIC robot, clued0, database, Farms, etc.



Data Taking Statistics

		Normalizable Luminosity (nb-1)				Hours			Norm. Events (k)		Efficiency	
Date	Del	Util	Live	Rec	Physics	Store	Util	Rec	Rec	Physics	Rec	Phys
21-Feb-03	1225.67	1192.04	1040.43	1036.24	1036.24	20.6	20.1	19.1	2810	2810	0.845	0.845
22-Feb-03	1110.37	1056.18	921.95	909.69	909.69	17.4	16.6	15.7	2258	2258	0.819	0.819
23-Feb-03	531.84	518.95	461.17	459.54	459.54	11.6	11.3	10.8	1626	1626	0.864	0.864
24-Feb-03	831.01	792.05	712.23	706.36	663.26	18.2	17.4	16.8	2294	2203	0.850	0.798
25-Feb-03	222.10	214.78	192.20	190.91	189.51	5.5	5.3	5.1	764	758	0.860	0.853
26-Feb-03	0.00	0.00	0.00	0.00	0.00	0.0	0.0	0.0	0	0	0.000	0.000
27-Feb-03	0.00	0.00	0.00	0.00	0.00	0.0	0.0	0.0	0	0	0.000	0.000
	3921.0	3774.0	3328.0	3302.7	3258.2	73.3	70.7	67.5	9752	9655	0.842	0.831

- Used trigger list global_CMT-10.03
- Peak initial rates for L1/L2 ~ 0.9/0.4 kHz
 - We can go higher but are limited by trigger list and instantaneous luminosities which have only averaged in the low to mid 2E31s



Delivered Luminosity Losses

Major Sources of Downtime: Not recording during a store

21-Feb-03	19:10	0.25	Muon PDT 021
22-Feb-03	21:22	0.43	SMT HDI Trips in Crate x64
24-Feb-03	22:23	0.60	CFT Timing Scan Special Runs

Other Losses

- ~1.0 hr: SBC crash and/or “stuck” CFT readout crate
 - Occurred twice during physics data taking
- ~1.0 hr: Redownloading and/or Disabling SMT HDIs
 - SMT Crate became 100% L1 FEB & Physics run was paused to
- ~0.5 hr: ~80 Run transitions (~0.5 minute/per)
- ~0.5 hr: 10 Begin or End Store transitions (~2-3 minutes/per)
- ~3-4 hrs: Average 5% FEB during physics data taking



Monthly Data Taking

DØ Data Taking: Monthly Summary [19 April 2002 - 27 February 2003]

